

REMARKS

Claims 1-36 are pending. By this Response, formal drawings are provided. Reconsideration and allowance based on the below comments are respectfully requested. Applicants have attached hereto corrected formal drawings. Acceptance of the formal drawings are respectfully requested.

The Applicants appreciate the indication of claims 21 and 28 as being allowed.

The Office Action rejects claims 1, 6-10, 13 and 14 under 35 U.S.C. §103(a) as being unpatentable over Merli (U.S. Patent No. 6,088,141); claims 2-5, 11 and 12 under 35 U.S.C. §103(a) as being unpatentable over Merli in view of Yemini, et al. (U.S. Patent No. 5,528,516); and claims 15-20, 22-27 and 29-36 under 35 U.S.C. §103(a) as being unpatentable over Merli in view of Fee, et al. (U.S. Patent No. 5,914,794). These rejections are respectfully traversed.

Merli discloses a system which is designed to operate in conjunction with a network manager. The network manager 116 is connected to each of the nodes. Within each node two fault monitors are provided to detect faults which are received at the node or occur within the node. The detection of faults is communicated to a local control unit 255 that communicates to the network management system. See column 4, lines 34-53 and column 6, lines 12-27. The nodes of Merli system only function separate from the network management system when an error occurs directly at the node or within the node. See column 3, lines 6-30.

Merli's system, however, does not receive information about errors of the channels upstream of the node. Therefore, Merli's system at best, only corrects within the node and without aid of the network control manager, the errors at the current node. Merli's system does not consider other error information in regard to the other channels upstream which information has been received directly through the nodes themselves.

Thus, Merli fails to teach or suggest, *inter alia*, "at least one optical sensor for measuring a first set of optical characteristics of the optical data stream at the node and a signal sensor configured to receive a second set of optical characteristics of the optical data stream from an upstream optical device", recited in claims 1, 10, 15 and 24. Further, Merli fails to teach or suggest, *inter alia*, "a control module configured to generate the switch commands, wherein the control module correlates the optical characteristics of the channels measured at the node with the channel status information received from at least one other node to determine if the node should initiate a line switch or an equipment switch", as recited in claim 19; "a first node containing a first optical sensor...and transmitting a first status report on the optical characteristics of the channels in this first node via said first transceiver, a second node containing a second optical sensor...transmitting a second status report on the optical characteristics of the channels in said second node via said second transceiver, wherein each local microprocessor determines whether to perform a line switch or an equipment switch as a function of the optical power characteristics of the local node

correlated with the status reports from the other nodes of the optical network via the internode channel”, as recited in claim 20; “a plurality of nodes coupled to each neighboring node, each node having at least one local optical sensor, each node having at least one optical transceiver for communicating status reports to each neighboring node that it is optically coupled to and sensing a loss and signal from a neighboring node via the local optical sensor, monitoring the transceiver to determine if the neighboring node is communicating status reports to the node and initiating a line switch to redirect traffic to an alternate optical path to restore data traffic if there is a loss in signal from the neighboring node and status reports are not being received from the neighboring node”, as recited in claim 22; “a plurality of nodes optically coupled to each neighboring node, each node having at least one local optical sensor, at least one transceiver for communicating data to each neighboring node that it is coupled to and receiving status reports that include a second set of optical characteristics of the optical challenge measured by at least one sensor in another node of the network”, as recited in claim 24; “measuring the optical power level at each channel linked to the local tributary network, receiving reports on the optical characteristics of the optical channels in neighboring upstream nodes, updating a status list of measured channel characteristics in the node and in the neighboring upstream nodes and selecting an equivalent switch decision in correlation of the channel power distribution between the node and an upstream nodes indicates the likelihood that a failure has occurred in an electro optic element in the node”, as recited in claims 29 and

33; and “sensing a first set of optical characteristics of the data stream at a first node, sensing a second set of optical characteristics of the data stream at the second node and comparing the second set of optical characteristics to a channel map to determine if a fault has occurred requiring that the controller at the second node to perform an activated restoration element”, as recited in claims 35 and 36.

The Office Action alleges that “Merli does not separate the optical characters into a first set and a second set” and it would be obvious to do so. This is an incorrect statement. The features of the present invention do not separate the optical characteristics into first and second sets as alleged in the Office Action. The first and second optical sets in the present invention are two distinct sets of data. The first set is a measured characteristic of the data stream at the node. The second optical set is optical characteristics of the optical data stream from an upstream optical node. These are two sets of data from two different origins. Thus, one of ordinary skill would not look to Merli’s system to provide the two sets of data because Merli’s system does not directly provide through the nodes optical characteristics about channels upstream from the current node.

Further, Fee fails to make up for the deficiencies of Merli. Fee teaches a system that utilizes line supervisory modules that detect faults on an optical line. The line supervisory module sends a detected fault to an element manager. The element manager then formulates an appropriate message identifying the type and location of a fault and sends this information to all line supervisory modules. See

column 4, lines 42 through 49. In another embodiment of Fee, a fault detection module 55 detects faults and reports these to an element manager, then transmits this message to the line supervisory modules. See column 5, lines 9-30.

In the system of Fee, the fault detected is transmitted to each of the line supervisory modules via the element manager at the node. Thus, information is transmitted first to the element manager, then to the line supervisory modules and then back to the nodes. This is not an inter-node optical communications channel which communicates first and second status reports or optical characteristics, as claimed by applicants in the present invention. In fact, Fee teaches away from an inter-node communication of the status reports and optical characteristics by using an element manager and line supervisory modules to communicate between nodes.

Further, Yemeni fails to make up for the deficiencies of Merli and Fee.

In view of the above, applicants respectfully submit that Merli alone or in combination with Fee fail to teach or suggest the features recited in applicant's independent claims. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Conclusion


For at least these reasons, it is respectfully submitted that claims 1-36 are distinguishable over the cited patents. Favorable consideration and prompt allowance are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad J. Billings (Reg. No. 48,917) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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Attachment(s)